FIG. 1

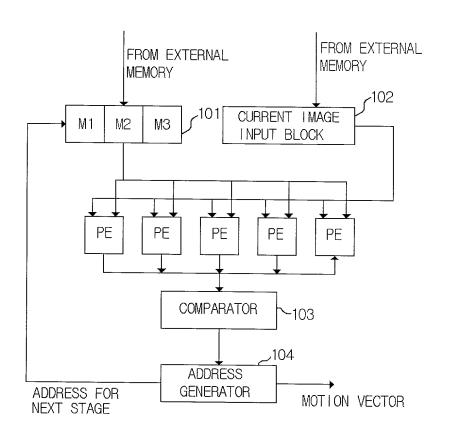


FIG. 2

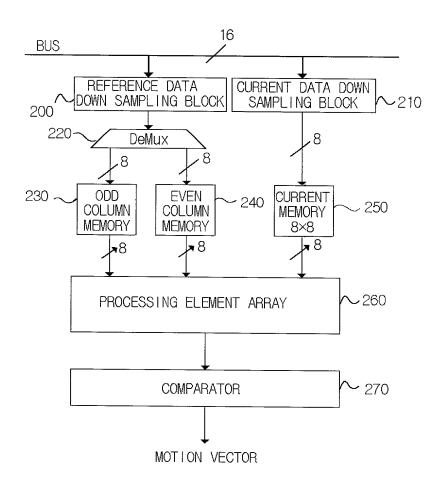
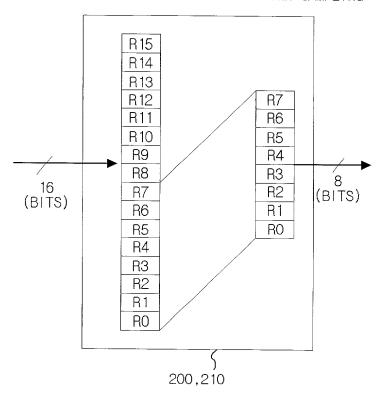


FIG. 3

REFERNCE AND CURRENT DATA DOWN SAMPLING



SEARCH MEMORY ADDRESS ODD MAPPING

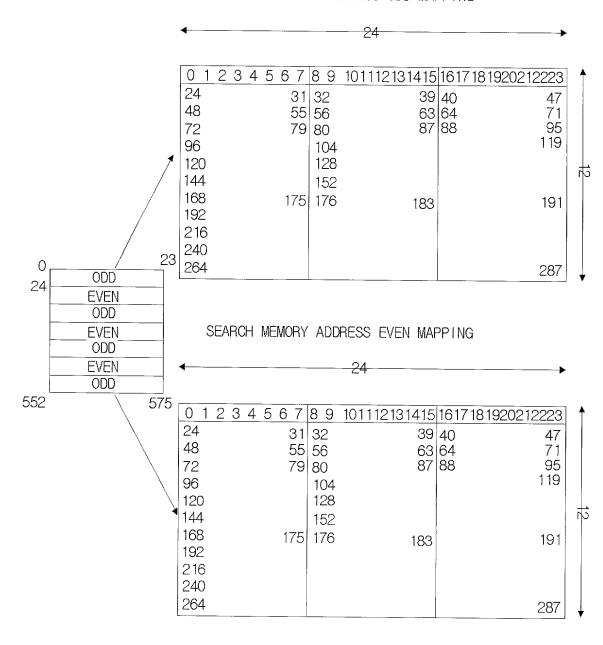


FIG. 5A

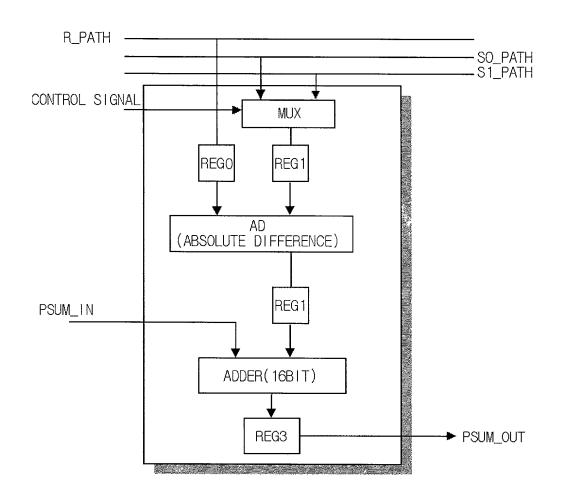


FIG. 5B

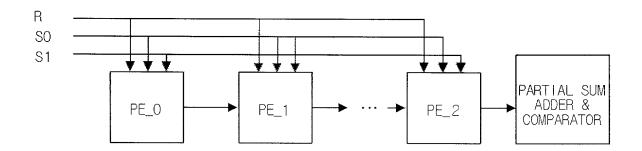


FIG. 6

QCIF(11×9)

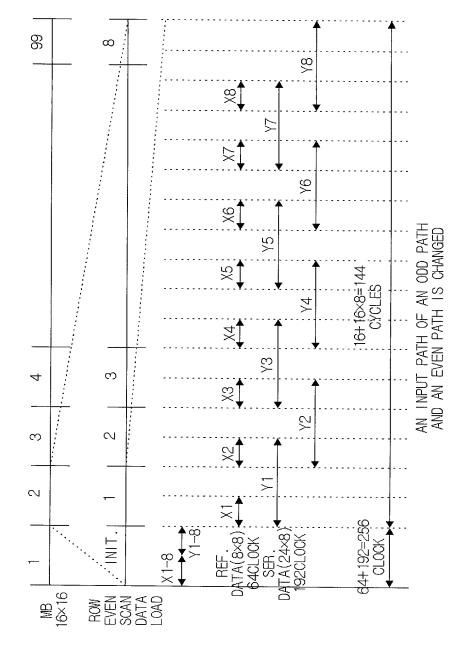
SEARCH REGION MEMORY WRITE MAP

PREFPELINE "A" WRITE,(0,0) PIPELINE "B" WRITE, OTHERS "C" WRITE

READ A->B->C

NEXT ROW WRITE 2 0 3 4 5 6 7 8 9 10 0 ABC AB C CAB BCA ABC CAB BCA ABC CAB BCA ABC BICIA BCA ABC CAB BCA ABC CAB BCA ABC CAB BICIA CAB CAB BCA CAB ABC BCA ABC С |B|C|A| ABC AB CAB ABC BCA ABC CAB ABC BC Α ABC CAB BICIA CAB ABC ABC BCA BCA ABC CAB BCA CAB BICIA ABC CAB BCA CAB BCA 5 AB BC C Α **ABC** CAB ABC CAB BCA CAB A BC CAB A B C В C ABC 6 BICIA CAB BCA ABC CAB BICIA ABC CAB BCA BCA BIC CAB C AB С CA ABC CAB BC Α В B Α Α CAB CAB BCA ABC |C|A|B| BCA ABC CAB BCA ABCCAB

FIG. 7



 $1 \text{ MACROBLOCK} = 144 \times 16 = 2304 \text{ CYCLES}$